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# STREET TRAFFIC RELIEF IN SAN FRANCISCO

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## I. RESULTS ACCOMPLISHED

*Traffic regulations modernized and clarified through enactment of New Model Traffic Ordinance.*

*Seventy-nine lives saved in two years—25% reduction in automobile fatalities.*

*\$2,000,000 saved annually through reduction in traffic accidents.*

*Traffic engineering applied continuously through new bureau under City Engineer.*

*Traffic Fines Bureau established—Handles minor violations; provides more certain punishment; expedites procedure.*

*Pedestrian safety and traffic speed increased through pedestrian control.*

*Traffic speed increased one-third in business district north of Market Street.*

*Traffic speed increased one-sixth in business district south of Market Street.*

*\$350,000 appropriated in City Budgets past two years for traffic control improvements—Increase 400%.*

*New system of traffic devices established—Makes regulations clear; channelizes intersection traffic for greater fluidity and safety; protects pedestrians; protects street car passengers; increases traffic capacity of intersections; reduces double parking and aids loading and unloading of merchandise; establishes system of arterial streets.*

*Improved Market Street Traffic Control applied—Reduces pedestrian hazards; channelizes traffic; facilitates cross traffic movements.*

*Personnel of Police Traffic Bureau increased twenty per cent.*

*Traffic school established to train all blue coat officers.*

*Public educated in traffic regulations and safety.*

## II. BASIC STUDIES UNDER WAY

*Plan for system of Major Streets.*

*Plan for Ultimate Solution of the Parking Problem.*

*Plan for Relief of Peak Traffic by de-synchronizing demands.*

*Plan for solution of the Embarcadero Traffic Problem.*

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THE TRAFFIC SURVEY COMMITTEE  
SAN FRANCISCO  
MARCH, 1930

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Street traffic relief in  
San Francisco /  
1930.

## THE TRAFFIC SURVEY COMMITTEE

**Nature and Purpose** The San Francisco Traffic Survey Committee is a non-governmental agency, entirely supported by the business interests of San Francisco and organized for the purpose of developing sound recommendations for relief of street traffic congestion and hazards, and co-operating with City officials and others concerned in the practical application of such measures.

### HOW RESULTS ARE ACCOMPLISHED

**Traffic Control Report** An extensive engineering survey was conducted for the Committee in 1926-27 by Dr. Miller McClintock, of the Erskine Bureau, Harvard University, nationally known authority on traffic control. The findings of this study with comprehensive recommendations were submitted to City authorities. The results accomplished, as before listed, were practically in accordance with the recommendations made. About 85% of the recommendations possible of immediate application have been put into effect.

**Cooperation the Key Note** Such vital changes affecting all traffic matters of a great city were made possible only through cooperation of many departments and officials of the City Government, and the aid of the press, civic, business and motoring organizations and other interests concerned, and through intensive follow-up of the recommendations on the part of the Survey staff. The San Francisco Traffic Law Enforcement Board should here be especially mentioned because of its continuous work in securing co-ordinated action in various traffic improvements.

**Traffic Responsibility Divided** The traffic problem is a relatively new one in municipal administration. It was not contemplated when the City Charter was drafted. Responsibility for various phases of the problem is divided among a number of more or less independent City Departments and Bureaus. In such a situation, the mere submission of comprehensive recommendations, however valuable, would be futile without active follow-up work during the period of transition and adjustment. Opportunities are continually arising for further application of the Control Plan recommendations.

**Some Features of Results Obtained** Traffic equipment has been installed in accordance with provisions of the new model traffic ordinance with funds from greatly increased traffic appropriations by the Board of Supervisors. Control devices, signs and markings relieve traffic congestion at intersections, give positive directions for automobile drivers and pedestrians and channelize and protect vehicular and pedestrian movements. Islands of refuge give safety to pedestrians in wide intersections. Safety zones protect persons boarding and alighting from street cars. Loading zones, for the loading and unloading of merchandise have reduced double parking. Corner clearance zones, prohibiting the parking of cars near corners, have increased the traffic capacity of street intersections.

The former downtown traffic signal system was not wired so as to permit flexible timing of signals. The traffic requirements on Market Street dictated the timing of all signals in the downtown area. Upon the installation of the new Market Street Control system and the flexible traffic signal control board at the Central Fire Alarm Station, the timing of signals in the districts north and south of Market was adjusted to meet the traffic requirements of each district, and the shorter time intervals, and other adjustments employed resulted in speeding up vehicular traffic and reducing pedestrian delays in those districts.

FEBRUARY 26, 1930.

SAN FRANCISCO TRAFFIC SURVEY COMMITTEE,  
SAN FRANCISCO, CALIFORNIA.

DEAR SIRs:

We have audited your records of cash receipts and disbursements for the period from September 1, 1928, to February 1, 1930, and submit a Statement of Cash Receipts and Disbursements, by Periods, from September 1, 1928, to February 1, 1930, inclusive.

The recorded cash receipts were found to have been deposited in the bank, and the cash disbursements were supported by invoices or other vouchers. The cash balance at February 1, 1930, was verified by certification obtained from the depository.

Yours truly,

(Signed) HASKINS & SELLS.

SAN FRANCISCO TRAFFIC SURVEY COMMITTEE

*Statement of Cash Receipts and Disbursements, by Periods,  
from September 1, 1928, to February 1, 1930*

	Total	September 1, 1929, to February 1, 1930	September 1, 1928 to August 31, 1929
CASH BALANCE AT BEGINNING OF PERIOD.....	\$ 9,935.16	\$ 6,150.43	\$ 9,935.16
RECEIPTS:			
From Subscriptions .....	\$33,990.68	\$11,105.00	\$22,885.68
Sale of traffic reports .....	85.00		85.00
Interest on bank balances .....	129.99	29.67	100.32
Miscellaneous .....	17.00		17.00
Total .....	\$34,222.67	\$11,134.67	\$23,088.00
Total .....	\$44,157.83	\$17,285.10	\$33,023.16
DISBURSEMENTS:			
Salaries:			
Office Pay-roll .....	\$28,051.68	\$ 8,826.59	\$19,225.09
Field Forces .....	2,890.00	1,015.00	1,875.00
Total .....	\$30,941.68	\$ 9,841.59	\$21,100.09
Office Rental .....	2,468.50	727.00	1,741.50
Traveling and incidental expenses.....	2,576.58	719.99	1,856.59
Telephone and telegraph .....	450.25	129.47	320.78
Printing forms and blue-prints and engineers' supplies, maps, etc. ....	1,132.56	232.21	900.35
Office supplies and expenses .....	1,128.11	294.64	833.47
Incidentals .....	184.54	64.59	119.95
Total .....	\$38,882.22	\$12,009.49	\$26,872.73
CASH BALANCE AT END OF PERIOD .....	\$ 5,275.61	*\$ 5,275.61	*\$ 6,150.43

\*A petty cash fund in the amount of \$75.00 is not included in the above statement.







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## BASIC STUDIES UNDER WAY

### Planning a Better Street System

After the publication of the McClintock report, the Committee undertook a study of a more adequate traffic street system for additional traffic relief. The distinguished city planner, Harland Bartholomew, was retained and prepared for the Committee a tentative plan for a system of traffic arteries. This plan suggests a city-wide network composed of radial thoroughfares from the business district to all sections of the city, cross-town arteries connecting each section with every other section,

and streets by-passing the business district. A large part of the system is made up of existing streets of sufficient width, and existing streets which should ultimately be widened. Certain new streets, connections and tunnels are proposed to complete the system. In line with the policy of the Survey Committee to co-operate with the City authorities to help improve traffic conditions, the Major Street Plan has been submitted to M. M. O'Shaughnessy, City Engineer, with whom the Committee is now collaborating in preparing a final draft.

The Survey now has under way three engineering studies looking toward the development of recommendations for further facilitating traffic movement

and the transaction of business in the congested areas. These studies are being directed by Dr. McClintock.

### Plan for Relieving Traffic Demands at Peak Hours

Traffic counts heretofore made show the in-rush and accumulation of persons and vehicles in the central business district during the morning peak, and the tremendous out-rush and dispersion during the late afternoon. The extreme difference between average and peak use of the streets indicates their low overall efficiency. Business activities of the city are carried on with little variation as to the time of opening and closing. Consequently, not only the streets, but all forms of transportation are seriously overburdened at these peak hours.

In order to ascertain the exact facts as to the characteristic movement of the two largest groups

in the central district, the Survey with the cooperation of building owners and store proprietors, conducted a count on September 26, 1929, of all foot traffic into and out of 79 large office buildings and of 25 principal stores, each ten-minute period during the business day. 617,600 persons were counted. Upon the basis of this count and other studies, a report by McClintock has been issued dealing with the question of peak traffic demands in the central business district and making specific recommendations for de-synchronizing the opening and closing hours of these two largest downtown groups. Negotiations are in progress with a view to carrying out the recommendations.

### Traffic Plan for the Embarcadero

With the authorization of the State Harbor Commission, and in cooperation with the Police Department and the maritime interests, the San Francisco Traffic Survey has undertaken a comprehensive study of the Embarcadero traffic problem. A plan is being developed for ultimately improving the surface design of this great artery in order to systematize traffic flow. A plan of traffic regulation will also be

recommended to eliminate confusion, promote safety of vehicular and pedestrian movement, and facilitate and control parking. A "Special Committee on Cooperation," representing waterfront interests, has been appointed by the President of the Harbor Commission to work with the Survey Committee staff in this study. The personnel of this committee is shown on the accompanying List of Personnel.

### Plan for Ultimate Solution of Parking Problem

This investigation proposes to determine the present and future parking demands in the central district, and the best means of satisfying these demands. It must answer the major question of how approximately 100,000 automobiles which now daily enter the central business area shall find conveniently located and adequate accommodations, when at best only about 2,000 of them can be parked at any one time at the curbs. It involves also the question of regulating the parking of cars at the curbs, which is an important factor in the problem. Obviously, off-street parking facilities must be provided to meet the ever-increasing need for convenient parking.

The type, location, capacity and service of such facilities to satisfy the present and future demands

of each block in the central business area are matters which can properly be determined only by a complete engineering and economic study. This study will analyze the demands not only for convenient public garage storage, but also for storage within or in connection with large office buildings, stores, hotels, theatres and public buildings to accommodate persons using these structures. A "Committee on Ultimate Parking Plan" has been appointed to work with the Survey Committee's Staff on this study. The personnel is shown on accompanying list.

San Francisco can, by adhering to a sound parking plan for its downtown district, progressively correct the present inadequacy, and avoid the haphazard and uneconomic development from which most large cities are suffering and which is a primary cause for the growth of intolerable street congestion.

# LIST OF PERSONNEL

## San Francisco Traffic Survey Committee

ROBERT I. BENTLEY . . . . .	Chairman	L. A. WOOLAMS . . . . .	Vice-Chairman and Treasurer
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MILTON ESBERG		CLAY MILLER	
JAMES J. FAGAN		LEON L. ROOS	
R. E. FISHER		W. L. ROTHCHILD	
ARNOLD HODGKINSON		PERCY E. TOWNE	
GUSTAVE LACHMAN		CHESTER N. WEAVER	
HALSEY E. MANWARING		J. M. YOUNT	

## Advisory Council

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A. H. BERGSTROM	MORTIMER FLEISHHACKER	M. R. HIGGINS	ALMER M. NEWHALL
F. W. BRADLEY	EUGENE N. FRITZ, JR.	GEORGE U. HIND	F. J. O'CONNOR
J. BRENDON BRADY	E. R. GALLAND	C. J. HOOPER	H. D. PILLSBURY
A. B. CHRISTENSON	J. J. GEARY	K. R. KINGSBURY	WILLIAM P. ROTH
COLBERT COLDWELL	W. H. GEORGE	FREDERICK J. KOSTER	A. E. SBARBORO
WILLIAM H. CROCKER	HARRY GORMAN	J. B. LEVISON	R. S. SHAINWALD
A. B. C. DOHRMANN	WILLIAM D. HADELER	EARLE G. LLOYD	JOHN F. SHEA
ROBERT DOLLAR	R. B. HALE	JOHN H. MCCALLUM	PAUL SHOUP
JOHN S. DRUM	D. E. HARRIS	JOHN D. MCKEE	W. W. STETTMEIER
GUY C. EARL	JAMES W. HARRIS	A. C. MCLAUGHLIN	JAMES TYSON
	JOSEPH F. VIZZARD	H. S. WARD	

## Committees on Special Traffic Problems

### Major Streets Committee

COLBERT COLDWELL	WILLIAM F. HUMPHREY
CHAS. J. DEERING	CHARLES HUNT
FRED DOHRMANN, JR.	N. R. POWLEY
W. D. FENNIMORE	PAUL SHOUP
R. E. FISHER	W. W. STETTMEIER
WILLIAM L. HUGHSON	GEORGE STIMMEL

### Special Committee on Cooperation-Embarcadero Traffic Study

W. P. BANNISTER	CAPT. WALTER J. PETERSON
CARL F. FENNEMA	J. P. POTTER
CAPT. CHARLES GOFF	CAPT. C. W. SAUNDERS
C. KING	CHARLES WHEELER
E. L. MCCORMICK	FRANK G. WHITE
F. J. O'CONNOR	M. J. WRIGHT

## Committee on Ultimate Parking Plan

GEORGE W. KELHAM, Representing	American Institute of Architects—Northern California Branch
W. H. SPAULDING	Building Owners & Managers Association
J. A. SULLIVAN	San Francisco Real Estate Board
J. V. COSTELLO	Retail Dry Goods Association of San Francisco
CAPT. CHARLES GOFF	City and County of San Francisco—Police Traffic Bureau
GEORGE D. BURR	City and County of San Francisco—Dept. of Public Works—Bureau of Engineering
F. T. LETCHFIELD	San Francisco Clearing House Association
CARL J. RHODIN	San Francisco Engineers' Club
R. L. JUAREZ	Garage & Property Owners Association

## Technical Staff

MILLER MCCLINTOCK . . . . .	Director	RALPH W. ROBINSON . . . . .	Executive Secretary
HARLAND BARTHOLOMEW and ASSOCIATES . . . . .	Consulting Engineers	I. S. SHATTUCK . . . . .	Resident Engineer